Resource Action: EWG-94 **Task Force Recommendation Category:** 4

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Proposed PM&E:
The Resource Action proposes to increase floodplain connectivity between the mainstream Feather River and the Oroville Wildlife Area (OWA) to increase inflow to selected OWA ponds during higher flows. The benefits of increasing the area and depth of ponds by engineered recharge in the OWA would potentially include enhanced fish production, increased area of riparian and wetland vegetation, and increased habitat for water or riparian/wetland-dependent wildlife.

There are many ponds of various sizes and depths in the OWA. Some of these were intentionally created (engineered), while others were caused by historic mining (hydraulic) activities. The water levels in these ponds are primarily influenced by groundwater, which in turn, is closely related to the stage in the Feather River. At the present time, there are two weirs in the levees surrounding the OWA that permit flows to enter the OWA from the Feather River, however, both of these weirs only operate at very high flows.

Related PM&Es:
There are a number of measures that are either similar to or potentially complementary to this PM&E. They include: EWG-79 and EWG-80 (increase the fisheries, riparian and wildlife values of the OWA); EWG-19A, EWG-22, and EWG-89 (geomorphic treatments for creation of riparian habitat); EWG-16A and EWG-16B, (enhancement or creation of side channel habitat).

Recommendations:
There are at least two options for improving inflow to OWA ponds: 1) modify existing weirs to increase their capacity to divert flows at lower levels of streamflow; or 2) remove the levee (see narrative report for EWG-89). Of the two options to increase the flows between the ponds and the main Feather River channel, removing levees (Option 2) would involve the most extensive engineering design work and construction. Enlarging or modifying the existing weirs (Option 1) would require a slightly less complex engineering design.

If flow diversion to OWA were increased during normal streamflow periods, it would reduce streamflow in the lower Feather River, which could result in elevated temperatures in the river. If either increasing weir capacities or removing levees were pursued, it is unlikely that flow diversions would be permitted during normal streamflow conditions.

This Resource Action is to be incorporated into EWG-16A, EWG-16B, EWG-22, and/or EWG-89. Therefore, it has been recommended as a Category 4.